Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	68	568/70 568/72 568/73	US-PGPUB; USPAT; EPO	OR	ON	2007/08/21 12:08
L2	67	568/69	US-PGPUB; USPAT; EPO	OR	ON	2007/08/21 12:08
L3	125	l1 or l2	US-PGPUB; USPAT; EPO	OR	ON	2007/08/21 12:08
L4	1638046	iron or cobalt or nickel or ruthenium or rhodium or palladium or osmium or iridium or platinum	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 12:10
L5	56	I3 and I4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 12:10
L6	32	l1 and l4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:04
L7	2271	FREMY.in. ESSAYEM.in. LACROIX.in. ZAUSA.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:05
L8	1	I7 and I3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:06
L9	153	I7 and I4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:06
L10	76	l9 and hydrogen	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:06

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L11	64	I10 and acid	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:06
L12	9	l11 and sulfide	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:07
L13	9	l11 and sulphide	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:07
L14	9	l12 or l13	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:07
L15	9	l14 not l6	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:12
L16	40	"2739132"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:13
L17	9	"3474042"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:14
L18	6	"5543036"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:15
L19	10	"3036133" ·	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:19
L20	16	"5420092"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:23

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L21	64	"5113034"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:24
L22	. 16	"2950324"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:27
L23	13	"2951875"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:28
L24	5	"5453544"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:29
L25	25	"4102931"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:31
L26	3	"6162952"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:51
L27	101	13 and hydrogen	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON .	2007/08/21 13:52
L28	77	l27 and sulfide	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:52
L29		l27 and sulphide	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:52
L30	77	l28 or l29	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:53

L31	46	130 not 16	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:53
L32	46	l31 not l15	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 13:53
L33	22	I32 and olefin	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 14:30
L34	27	568/72	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 14:31
L35	20	568/73	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 14:31
L36	37	l34 or l35	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 14:31
L37	23	136 not 16	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR .	ON	2007/08/21 14:31
L38	10	l37 not l33	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/08/21 14:32

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SINCE FILE ENTRY TOTAL SESSION

FULL ESTIMATED COST

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0.21

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=> s iron or cobalt or nickel or ruthenium or rhodium or palladium or osmium or iridium or platinum

1028278 IRON

394647 COBALT

647592 NICKEL

98210 RUTHENIUM

72816 RHODIUM

169918 PALLADIUM

26033 OSMIUM

43185 IRIDIUM 222182 PLATINUM

L1 2077944 IRON OR COBALT OR NICKEL OR RUTHENIUM OR RHODIUM OR PALLADIUM OR OSMIUM OR IRIDIUM OR PLATINUM

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1010335 HYDROGEN

330811 SULFIDE

54935 HYDROGEN SULFIDE

(HYDROGEN (W) SULFIDE)

L3 2041 L2 AND HYDROGEN SULFIDE

=> s 13 and olefin

104998 OLEFIN

L4 13 L3 AND OLEFIN

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YOU HAVE REQUESTED DATA FROM 13 ANSWERS - CONTINUE? Y/(N):y

ANSWER 1 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

2006:1157727 CAPLUS ACCESSION'NUMBER:

DOCUMENT NUMBER:

145:474389

TITLE:

Cracked naphtha oligomerization-hydrodesulfurization

for manufacture of gasoline blending stocks

INVENTOR(S):

Picard, Florent; Debuisschert, Quentin; Pucci, Annick

Institut Francais Du Petrole, Fr.

PATENT ASSIGNEE(S): SOURCE:

PCT Int. Appl., 23pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

French

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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APPLICATION NO.
PATENT NO.
                   KIND
                          DATE
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                                   WO 2006-FR912
 WO 2006114510
                    A1 20061102
                                                            20060424
    W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
        CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
        GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
        KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
        MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
        SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
        VN, YU, ZA, ZM, ZW
     RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
        IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
        CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
        GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
        KG, KZ, MD, RU, TJ, TM
 FR 2885137
                    A1
                           20061103
                                     FR 2005-4302
                                                            20050428
 FR 2885137
                     B1
                           20070713
                                      FR 2005-4302
                                                         A 20050428
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PRIORITY APPLN. INFO.:

A method for production of a low-sulfur, low-olefin (higher-boiling) naphtha, with a relatively high octane number, from a light (e.g., C4) olefinic naphtha by: (1) oligomerization of the light olefinic naphtha over an acid catalyst to produce a branched dimer-rich and trimer-rich olefinic naphtha, (2) mixing the product from step (1) with a naphtha rich in sulfur compds. and olefins, (3) hydrodesulfurization of the mixture to hydrogenate the branched olefinic dimers and trimers and to liberate H2S, and (4) separation of H2S. Catalysts for step (1) are selected from silica-supported phosphoric acid, polymeric cation exchange resins, acidic inorg. oxides (e.g., alumina), silica-alumina, and zeolites. Hydrodesulfurization is carried out at 220-350°, 0.1-5 MPa, 0.5-20 h-1 space velocity, and 50-800:1 hydrogen-naphtha volume ratio, over an inorg. oxide-supported metal oxide containing 0.5-15:1.5-60 weight% ratio

Group VIII-Group VIB metal oxide catalysts. 1

REFERENCE COUNT:

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2006:817676 CAPLUS

DOCUMENT NUMBER:

145:216479

TITLE: INVENTOR(S): Process and device for purifying gas streams

Boelt, Heinz; Gutmann, Manfred; Haering, Heinz-Wolfgang; Walzl, Roland; Wenning, Ulrike

PATENT ASSIGNEE(S):

Linde Aktiengesellschaft, Germany

SOURCE:

Eur. Pat. Appl., 9pp.

DOCUMENT TYPE:

CODEN: EPXXDW

LANGUAGE:

Patent

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
                          KIND
                                 DATE
                                             APPLICATION NO.
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                                          EP 2006-2000
     EP 1690587
                          A2
                                20060816
                                                                    20060131
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK,
              BA, HR, IS, YU
      DE 102005013276
                                 20060824
                                             DE 2005-102005013276
                          A1
                                                                    20050322
 PRIORITY APPLN. INFO.:
                                             DE 2005-102005006538A 20050211
                                             DE 2005-102005009216A 20050225
DE 2005-102005013276A 20050322
· AB
      The invention concerns a procedure and device for purification of an
      olefin-containing gas stream, in particular a olefin-containing
      residual gas stream from a petrochem. plant or a refinery, before its
      operational discharge into a decomposition component for the production of one
 or
      more olefin products. With the purification acid gases,
      catalyst poisons, nitrogen oxides, water, hydrogen and methane are removed
      in various purification steps, whereby the nitrogen oxides preferably
      catalytically converted. The process may be regulated by various
      operation parameters or by the concns. of various gas components.
      ANSWER 3 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN
 L4
 ACCESSION NUMBER:
                          2004:249306 CAPLUS
 DOCUMENT NUMBER:
                          140:289188
 TITLE:
                          Catalytic process for fabrication of alkyl mercaptans
                         by the addition reaction of hydrogen
                          sulfide with alkenes
 INVENTOR (S):
                          Fremy, Georges; Essayem, Nadine; Lacroix, Michel;
                          Zausa, Elodie
 PATENT ASSIGNEE(S):
                          Atofina, Fr.
                          Fr. Demande, 14 pp.
 SOURCE:
                          CODEN: FRXXBL
DOCUMENT TYPE:
                         Patent
 LANGUAGE:
                          French
 FAMILY ACC. NUM. COUNT:
 PATENT INFORMATION:
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	TENT						DATE				ICAT					ATE	
	2844															0020	925
FR	2844	794			В1		2004	1203									
CA	2499	629			A1		2004	0408		CA 2	003-	2499	629		2	00309	923
WO	2004	0290	05		A1		2004	0408		WO 2	003-	FR27	89		. 2	0030	923
	W:	ΑE,	AG,	ΑĿ,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NI,	NO,	NZ,	OM,
		PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	TM,	TN,
		TR,	TT,	TZ,	UA,	ŪĠ,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZM,	ZW			
	RW:	GH,	GM,	ΚE,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	ΚZ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
		FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,
											GW,						
AU	2003	2821	86		A1		2004	0419		AU 2	003-	2821	86		2	00309	923
EP	1542	944			A1		2005	0622		EP 2	003-	7738	06 .		2	00309	923
EP	1542																
	R:										IT,						PT,
											TR,						
	1701										003-						
JP	2006	5004	16		T		2006	0105		JP 2	004-	53912	25		26	00309	923
	3538															00309	923
	2006				A1		2006	0525		US 2	005-	5289	01		20	00512	220
PRIORIT	Y APP	LN.	INFO	. :						FR 2	002-	1192	3	7	A 20	00209	925
		-								WO 2	003-1	FR278	39	Ţ	√ 20	00309	923

OTHER SOURCE(S): MARPAT 140:289188

Alkyl mercaptans (e.g., Et mercaptan) are prepared by the addition reaction of

an olefin (e.g., ethylene) with hydrogen

sulfide in the presence of hydrogen and a catalytic composition

including a strong acid, such as a heteropoly acid

(e.g., 12-phosphotungstic acid) and at least 1 Group VIIIB metal

(e.g., Pd/SiO2).

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 4 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:607466 CAPLUS

DOCUMENT NUMBER: 139:154164

TITLE: Procedure for the treatment of sulfide-containing

liquids

INVENTOR(S): Ruhland, Bernhard; Fritz, Helmut

PATENT ASSIGNEE(S): Linde A.-G., Germany Ger. Offen., 14 pp. SOURCE:

CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10204654	A 1	20030807	DE 2002-10204654	20020205
PRIORITY APPLN. INFO.:			DE 2002-10204654	20020205

A procedure for the treatment of sulfide-containing fluids is described , in particular wastewaters or the spent liquors from an olefin plant, by stripping with a carbon dioxide-containing stripping gas. In a stripping column acid gas components are driven out from the liquid, so that carbon dioxide and hydrogen sulfide containing exhaust gas accrue. For an economic operation a circulatory gas system is suggested, which separates the hydrogen sulfide in an adsorption stage. The adsorption stage is for example trained as fixed bed adsorbents with iron hydroxide or iron oxide as the adsorbent. The hydrogen sulfide is adsorbed at the iron hydroxide or iron oxide. For regeneration of the adsorbent an oxygen-containing gas can be used. Elemental sulfur accrues, which can be removed and supplied for utilization as a solid. The residual carbon dioxide-containing exhaust gas is reused for the formation of the carbon dioxide-containing

ANSWER 5 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:516399 CAPLUS

DOCUMENT NUMBER: 131:132136

TITLE: Acidic mesoporous catalysts

Yahav, Ganapati Dadasaheb; Krishnan, M. S.; Doshi, Nirav Shashikant; Purjari, Ajit Atmaram; Rahuman, M. INVENTOR(S):

S. M. Mujeebur

PATENT ASSIGNEE(S): Secretary Department of Science and Technology, India

SOURCE: Brit. UK Pat. Appl., 34 pp.

CODEN: BAXXDU

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

stripping gas.

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2332155	Α	19990616	GB 1998-27396	19981211
GB 2332155	В	20010912		

IN 1997DE03594	Α	20051118	IN	1997-DE3594		19971212
JP 2000042416	Α	20000215	JP	1998-375450		19981214
JP 3486566	B2	20040113				
US 6204424	B1	20010320	US	1998-211499		19981214
IN 2004DE01631	Α	20060721	IN	2004-DE1631		20040830
PRIORITY APPLN. INFO.:			IN	1997-DE3590	Α	19971212
			IN	1997-DE3594	Α	19971212
			TN	1997-DE3595	Δ	19971212

OTHER SOURCE(S): MARPAT 131:132136

AB An eco-friendly synergistic heterogeneous solid catalyst for use in reactions, such as alkylation, oligomerization, isomerization, hydration, dehydration, etherification, esterification, hydrocracking, and nitration of organic compds., comprises synergistic combination of sulfated metal oxide and mesoporous zeotypes comprising Si 50-60, Zr 40-50, and S 5-10 weight%, and having surface area of 200-500 m2/g, pore volume of 0.1-0.3 m3/g, pore diameter of 25-35 Å, and XRD peak at 20 being 0-3. The invention also covers the process of manufacture of the above catalysts and its use in particular for producing oligomers from α-olefins, Friedel-Crafts alkylation and acylation reactions.

L4 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:468033 CAPLUS

DOCUMENT NUMBER: 131:118312

TITLE: Attrition resistant catalysts and sorbents based on

heavy metal poisoned FCC catalysts

INVENTOR(S): Gangwal, Santosh; Jothimurugesan, Kandaswamy

PATENT ASSIGNEE(S): Research Triangle Institute, USA

SOURCE: U.S., 9 pp.
CODEN: USXXAM

DOCUMENT TYPE: CODEN: USXXA

LANGUAGE: Facent English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5928980	A	19990727	US 1997-795669	19970206
PRIORITY APPLN. INFO.:			US 1997-795669	19970206

AB A heavy metal poisoned, spent FCC catalyst is treated by chemical impregnating the poisoned catalyst with a new catalytic metal or metal salt to provide an attrition resistant catalyst or sorbent for a different catalytic or absorption processes, such as catalysts for Fischer-Tropsch synthesis, and sorbents for removal of sulfur gases from fuel gases and flue gases. The heavy metal contaminated FCC catalyst is directly used as a support for preparing catalysts having new catalytic properties and sorbents having new sorbent properties, without removing or passivating the heavy metals on the spent FCC catalyst as an intermediate step.

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:365009 CAPLUS

DOCUMENT NUMBER: 129:42051

TITLE: Thermoplastic sheaths with low acid-gas

permeability for use in conduits under pressure

INVENTOR(S): Jarrin, Jacques; Perrin, Louis
PATENT ASSIGNEE(S): Institut Français Du Petrole, Fr.

SOURCE: Eur. Pat. Appl., 9 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

I		o.	KIND	DATE	APPLICATION NO.	DATE
	EP 844429	9			EP 1997-402750	19971117
F		9 AT BE C			GB, GR, IT, LI, LU, NI	ו. פד אר סיד
		IE, FI	. DE, DR	., ES, FR,	GD, GR, 11, D1, D0, N1	D, SE, MC, FI,
_		74			AU 1997-45274	19971119
		5				
J	US 611055	50	Α	20000829	US 1997-976636	19971124
PRIOR	ITY APPLI	N. INFO.:			FR 1996-14432	A 19961122
AB 7	The title	e sheaths	, with lo	w permeabi	lity to acid gases and	đ
					are prepared by extru	
					ides) which react irre	
					mm, thickness 2 mm)	
					th 50% Ca(OH)2 and 5%	
					or H2S in 7 h at 80°	/40 bar.
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					L CITATIONS AVAILABLE	

L4ANSWER 8 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:669296 CAPLUS

DOCUMENT NUMBER:

115:269296

TITLE: Nitrogen-containing aromatic heterocyclic ligand-metal complexes and their use for the activation of hydrogen

peroxide and dioxygen in the reaction of organic

compounds

INVENTOR (S): Sawyer, Donald T.; Sheu, Ceshing; Sobkowiak, Andrzej;

Tung, Hui Chan

PATENT ASSIGNEE(S): Texas A and M University, USA

SOURCE: PCT Int. Appl., 101 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9110634	A1	19910725	WO 1991-US147	19910108
W: JP		•		
RW: AT, BE, CH,	DE, DK	, ES, FR, GB	, GR, IT, LU, NL, SE	
US 5149880	Α	19920922	US 1990-573346	19900824
CA 2034167	A1	19910717	CA 1991-2034167	19910115
PRIORITY APPLN. INFO.:			US 1990-466485 A	19900116
			US 1990-573346 A	19900824

OTHER SOURCE(S): MARPAT 115:269296

N-containing aromatic heterocyclic ligand-metal complexes and their use for the activation of H2O2 and O2 are disclosed. Processes whereby activated H2O2 and O2 are used to transform various organic substrates are also disclosed. In particular, processes for the conversion of methylenic carbons to carbonyls, for the dioxygenation of aryl olefins, acetylenes, and $aryl-\alpha$ -diols, for the oxidation of alcs. and aldehydes, and for the removal of mercaptans from gaseous streams, and for the removal of H2S and/or mercaptans from liquid streams are disclosed. A process for the activation of O2 or H2O2 comprises contacting O2 or H2O2 with a complex of formula $(L) \ lm(OM) \ m(L') \ n(A) \ p$, where $L, L' = a \ 5-10$ -member aromatic heterocyclic ligand containing ≥1 N atom, which ligand is unsubstituted or mono- or polysubstituted by CO2-, CO2H, alkyl, cycloalkyl, or aryl, which in turn is unsubstituted or mono- or polysubstituted by CO2-, CO2H, alkyl, or cycloalkyl; M = transition metal cation; A = anion; l = 1-4; m = 0 or 1; n= 0-4; and p = 0-3; under conditions suitable for said activation to take place, provided: (a) if O2 is to be activated (i) M is in its reduced state and L is at least monosubstituted by CO2- or CO2H when M is Fe, and (ii) L is not quinolinolate or quinolinol when M is Fe and L is not

picolinate or picolinic acid when M is Fe and L is not picolinate or picolinic acid when M is Mn or Co; and (b) if H2O2 is to be activated, L is not pyridine, bipyridine, quinolinolate or quinolinol when M is Fe and L is not picolinic acid or picolinate when M is Mn or Co.

L4 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: . 1990:612365 CAPLUS

DOCUMENT NUMBER: 113:212365

TITLE: Functionalization of saturated hydrocarbons. Part

XVII. Reactivity of carbon-carbon double bonds

AUTHOR(S): Barton, Derek H. R.; Lee, Kyu Wan; Mehl, Wolf;

Ozhalik Nuhar: Zhang Li

Ozbalik, Nubar; Zhang, Li

CORPORATE SOURCE: Dep. Chem., Texas A and M Univ., College Station, TX,

77843, USA

SOURCE: Tetrahedron (1990), 46(11), 3753-68

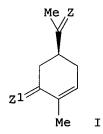
CODEN: TETRAB; ISSN: 0040-4020

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 113:212365

GΙ



The Gif oxidation systems cleave methylidene olefins into the ketone or aldehyde and formaldehyde. This is considered to be a further manifestation of an VFe oxenoid species. Similarly, more substituted olefins are oxidized to the resp. unsatd. ketones or aldehydes. The oxidation of limonene (I; Z = CH2, Z1 = H, H) afforded the ketone I (Z = CH2, Z1 = H, H), resulting from methylene cleavage, and racemic carvone (I; Z = CH2, Z1 = O). The latter is considered to originate from a sym. π -allyl complex of iron.

L4 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:12935 CAPLUS

DOCUMENT NUMBER: 110:12935

TITLE: Deodorants for treatment of indoor air

INVENTOR(S): Murao, Kazuhiro; Masuko, Ichihiro

PATENT ASSIGNEE(S): Nippon Carbide Industries Co., Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63174659	Α	19880719	JP 1987-5931	19870116
JP 06051054	В	19940706		•

PRIORITY APPLN. INFO.: JP 1987-5931 19870116

AB Deodorants used in the removal of NH3, H2S, mercaptans and organic amines from odorous air are prepared by loading a metal phthalocyanine compound and

water-dispersible resin solution onto a porous support (e.g., zeolites and nonwoven fabric sheets). The deodorants have a pH of 5-13, and the water-dispersible resin solution is obtained by polymerizing ≥ 1 of α olefin monomer or α, β -unsatd. carboxylic acids in the presence of a catalyst. Thus, phthalocyanineoctacarboxylic acid Fe complex 0.3, water-dispersible vinyl acetate polymer solution (viscosity 100 cP, solid components .apprx.50%, pH 4.0) 100, and 10% KOH 5 weight parts were blended and then loaded on a nonwoven fabric sheet (surface area 150 g/m2) to obtain a deodorant (pH 9.0) suitable for removing H2S from odorous air.

T.4 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1987:556889 CAPLUS

DOCUMENT NUMBER: 107:156889

Surface effects during propane pyrolysis TITLE:

Lou, Qiangkun; Liu, Huicai; Niu, Fenghui; Zou, Renjun Hebei Inst. Technol., Peop. Rep. China AUTHOR (S):

CORPORATE SOURCE:

SOURCE: Shiyou Xuebao, Shiyou Jiagong (1987), 3(1), 34-41

CODEN: SXSHEY; ISSN: 1001-8719

DOCUMENT TYPE: Journal LANGUAGE: Chinese

The nature of the reactor tube and its surface modifications affected the rate and nature of coke deposition during the pyrolysis of C3H8 to produce C2H4 and propylene. The rate of deposition was in the order preoxidized Ni > Ni > preoxidized stainless steel (I) > I > H-treated I > HCl-treated I > H2S-treated I > H2S04-treated I > quartz. The greater the activity of the reactor surface, the more olefin adsorption and coking occurred.

ANSWER 12 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1987:409348 CAPLUS

DOCUMENT NUMBER: 107:9348

Selective hydrocarboxylation of propylene to TITLE:

isobutyric acid

INVENTOR(S): Pesa, Frederick A.; Haase, Thomas A.

Standard Oil Co., USA PATENT ASSIGNEE(S):

SOURCE:

U.S., 7 pp.

CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

US 1990 PATENT NO. KIND DATE APPLICATION NO. ----_____ US 4652677 US 1980-128602 19800310 US 1980-128602 19800310 Α 19870324 PRIORITY APPLN. INFO.: AB Iso-PrCO2H (I) is manufactured by hydrocarboxylation of C3H6 in the liquid phase

at 75-150°/250-5000 psi in the presence of a heat-resistant catalyst comprising Pd supported on a porous inert carrier, a hydrogen halide, and an organic arsine ligand. The inert carriers are selected from silica, alumina, aluminosilicates, silica carbide, titanium, zirconia, C, and zeolites; and the hydrogen halide is selected from the group HCl, HBr, and HI. The C3H6-Pd molar ratio is 10-2000:1, the organoarsine-Pd molar ratio is 1-100:1, and the hydrogen halide-palladium molar ratio is 5-500:1. A catalyst system containing 55% Pd on alumina-AsPh3-HCl (molar ratio 1:4:90) was fed 14.79 g C3H6 over 90 min under 800-1200 psi CO in 100 mL HOAc at 110° and (1.5-2):1 water-C3H6 mol ratios producing 67.5% olefin conversion with 80.5% I selectivity.

ANSWER 13 OF 13 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1953:52693 CAPLUS

DOCUMENT NUMBER: 47:52693 ORIGINAL REFERENCE NO.: 47:8935q-i,8936a-i,8937a-e

TITLE: American Society for Testing Materials, Standards,

1952. V. Fuels, petroleum, aromatic hydrocarbons,

engine antifreezes (1952), 1253 pp.

SOURCE:
DOCUMENT TYPE:

Book

LANGUAGE:

Unavailable

AB Standards or tentative standards, adopted or revised in 1952 are given for: distillation of crude petroleum; gravity of petroleum and its products; ASTM-IP petroleum measurement tables; reduced pressure distillation of petroleum

products; test for S in petroleum products and lubricants; test for water in petroleum products and other bituminous materials; test for water and sediment; definitions of terms relating to petroleum; test for C2H2 in polymerization-grade butadiene; tests for b.p. range and butadiene content of polymerization-grade butadiene; carbonyl content of butadiene; test for 1,3-butadiene in C4 hydrocarbon mixts.; measurement of f.ps. for evaluation of purity; tests for O in butadiene vapors and for peroxides in butadiene; determination of purity from f.ps.; sampling petroleum and petroleum products; tests for separation of residue from butadiene and for butadiene dimer and nonvolatile residue of polymerization-grade butadiene; test for total inhibitor content (p-tert-butylcatechol) of butadiene; distillation test of gasoline, naphtha, kerosine, and similar petroleum products; test for viscosity and for flash and fire points; tests for flash point by Pensky-Martens closed tester and by Tag closed tester, method of calculating viscosity index; conversion of kinematic viscosity to Saybolt Furol viscosity; vacuum distillation of liquid and semi-solid asphaltic materials to obtain a residue of specified penetration; test for softening point; asphalt-base emulsions for use as protective coatings for built-up roofs; gasoline and aviation gasoline; acidity of residue from distillation of gasoline

and of petroleum solvents; analysis of 60 octane number isooctane-normal heptane ASTM knock test reference fuel blends; test for aromatic hydrocarbons in olefin-free gasolines; test for autogenous ignition temps. of petroleum products; tests for C6H6 and toluene, Br number of petroleum distillates, color of refined petroleum oil, and color of U.S. Army motor fuel; measurement of d. and sp. gr. of liquids; distillation

natural gasoline; gaging petroleum and petroleum products; test for existent gum in fuels and in gasoline; test for H in petroleum fractions; test for knock characteristics of aviation and motor fuels; test for mercaptan S in jet fuels; test for olefins and aromatics in petroleum distillates; test for oxidation stability of gasoline and aviation gasoline; measurement of refractive index and refractive dispersion of hydrocarbon liquids; test for free and corrosive S in petroleum products; test for S in petroleum products; test for tetraethyllead in gasoline; tests for heat of combustion of liquids, and of vapor pressure of petroleum products; volume calcns. and corrections in measurement of petroleum and petroleum products; test for water tolerance of aviation fuels; petroleum spirits; Stoddard solvent; reagent water; test for d. of hydrocarbon liquids; test for distillation range of lacquer solvents and diluents; tests for heptane number; kauri-butanol value and nitrocellulose diluting power of hydrocarbon solvents; test for olefinic plus aromatic hydrocarbons in petroleum distillates; classification of Diesel fuel oils; farm tractor fuels and fuel oils; test for aniline point and mixed aniline point of petroleum products and hydrocarbon solvents; test for ash content of petroleum oils; test for burning qualities of kerosine, mineral seal oil, and of long-time burning oil for railway use; test for C residue of petroleum products; test for cloud and pour points; distillation test of gas

and similar distillate fuel oils; test for ignition value of Diesel fuels; test for neutralization value (acid and base nos.); test for sediment in fuel oil; conversion of kinematic viscosity to Saybolt universal viscosity; test for kinematic viscosity; test for Cl in

of

oil

lubricating oils and greases; test for color of lubricating oil and petrolatum; test for dilution of crankcase oils; tests for steam emulsion of lubricating oils and evaporation loss of lubricating greases and oils; test for foaming characteristics of crankcase oils; chemical analysis for metals in lubricating oils; test for normal pentane and C6H6 insolubles in used lubricating oils; test for P in lubricating oils, lubricating-oil additives, and their concentrates; sampling coals classed according to ash content; laboratory sampling and analysis of coal and coke; sampling and fineness test of powdered coal; sampling and analysis of coal for volatile-matter determination; test for grindability and screen analysis of

coal;

drop shatter and tumbler tests for coal; designating the size of coal from screen analysis; test for size of anthracite; tests for sieve analysis and cu. ft. weight of crushed bituminous coal; index of dustiness of coal and coke; test for free-swelling index of coal; classification of coals by rank and grade; gas and coking coals; sieves for testing purposes; definitions of terms relating to coal and coke, gross and net calorific values of solid and liquid fuels, and of com. varieties of bituminous and sub-bituminous coals; sampling coke for analysis; test for volume of cell space of lump coke; drop shatter and tumbler tests of coke; tests for sieve analysis and cu. ft. weight of coke; test for sp. gr. and calorific value of gaseous fuels; analysis of natural gases and related types of gaseous mixts.; test for water-vapor content of gaseous fuels; sampling manufactured gas; industrial 90, nitration and industrial-grades C6H6; refined, crude light, and crude heavy solvent naphthas; nitration and industrial-grades toluene; 5°, 10°, nitration, and industrial-grades xylene; test for acidity and acid wash color of C6H6, toluene, xylenes, solvent naphthas, and similar industrial aromatic hydrocarbons; test for Cu corrosion, distillation, and paraffins of industrial aromatic hydrocarbons; test for solidifying point of benzenes; tests for sp. gr., color, H2S, and SO2 content of industrial hydrocarbons; test for thiophene in C6H6; hydrometer-thermometer field test and b.p. of engine antifreezes; tests for ash content, reserve alkalinity, sp. gr., and water of concentrated antifreezes; test for precipitation number of lubricating oils: test

for saponification number of petroleum products; test for Na in lubricating oil and

lubricating-oil additives; test for sulfated residue from new lubricating oils; test for sulfated residue, Pb, Fe, and Cu in new and used lubricating oils; viscosity-temperature charts for liquid petroleum products; test for interfacial tension of oil against water; test for oxidation characteristics of inhibited steam-turbine oils; test for rust-preventing characteristics of steam-turbine oil in the presence of water; tests for elec. insulating oils, askarels, inorg. chlorides and sulfates in insulating oils, dielec. strength of insulating oils of petroleum origin, and gas content of insulating oils; test for power factor and dielec. constant of elec. insulating oils of petroleum origin; sampling elec. insulating oils; test for sludge formation in mineral transformer oil; detection of free S in elec. insulating oils; purchase of uninhibited mineral oil for use in transformers and oil circuit breakers; analysis of Ca, Ba, and oil-soluble Na petroleum sulfonates; distillation test of plant

spray

oils; test for unsulfonated residue of petroleum plant spray oils; analysis of grease; apparent viscosity, cone penetration, and dropping point of lubricating grease; test for oxidation stability of lubricating greases; test for carbonizable substances in paraffin wax and white mineral oil; test for congealing point of pharmaceutical petrolatums; testing hydrocarbon waxes used for elec. insulation; m.ps. of paraffin wax, petrolatum, and microcryst. wax; test for oil content of paraffin wax; test for penetration of petrolatum; measurement of gaseous fuel samples; measuring temperature of petroleum and petroleum products; sampling natural gas; sampling and preparing aqueous solns. of engine antifreeze for testing purposes; f.p. of aqueous engine antifreeze solns.; determination of pH of aqueous

solns. with glass electrode; designating significant places in specified limiting values; definitions of terms relating to sp. gr., screen, rheological properties of matter, and of conditioning and weathering; ASTM thermometers; and method of testing and standardization of etched-stem liquid-in-glass thermometers. Tentative revisions submitted in 1952 are given for: test for existent gum in gasoline.

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L3 ANSWER 1 OF 2 CASREACT COPYRIGHT 2007 ACS on STN

RX(1) OF 1

NiO, MoO3, Al2O3, H2S H₃C-CH₂-SH $H_2C = CH_2$ 77%

REF: Rom., 114253, 26 Feb 1999

NOTE: high pressure, thermal, 320.degree., 4 bar

ANSWER 2 OF 2 CASREACT COPYRIGHT 2007 ACS on STN L3

RX(1) OF 2

H2S H3C-CH2-SH $H_2C = CH_2$

REF: Org. Reactions (A. C. Cope, Editor-in-Chief, John Wiley and Sons,

Inc., New York, 1963), 13,, 150-376; 1963
NOTE: Classification: "1,2-Addition"; Thiolation; # Conditions: H2S; #

Comments: Review article; Generic reactions of olefins